

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference A2003/00997	FOR FURTHER ACTION		See item 4 below
International application No. PCT/AT2004/000229	International filing date (<i>day/month/year</i>) 30 June 2004 (30.06.2004)	Priority date (<i>day/month/year</i>) 30 June 2003 (30.06.2003)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant TGW TRANSPORTGERÄTE GMBH & CO. KG.			

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 *bis*.1(a).
2. This REPORT consists of a total of 9 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- | | |
|--|---|
| <input checked="" type="checkbox"/> Box No. I | Basis of the report |
| <input checked="" type="checkbox"/> Box No. II | Priority |
| <input type="checkbox"/> Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> Box No. VI | Certain documents cited |
| <input type="checkbox"/> Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> Box No. VIII | Certain observations on the international application |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. +41 22 740 14 35	Date of issuance of this report 16 March 2006 (16.03.2006)
	Authorized officer Yolaine Cussac Telephone No. +41 22 338 70 80

PATENT COOPERATION TREATY

Translation

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing
(day/month/year)

Applicant's or agent's file reference

A2003/00997

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/AT2004/000229

International filing date (day/month/year)

30.06.2004

Priority date (day/month/year)

30.06.2003

International Patent Classification (IPC) or both national classification and IPC

Applicant

TGW TRANSPORTGERÄTE GMBH & CO. KG.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/EP

Authorized officer

Facsimile No.

Telephone No.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

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Box No. I

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐

This opinion has been established on the basis of a translation from the original language into the following language

_____, which is the language of a translation furnished for the purposes of international search (under

Rule 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

☐

a sequence listing

☐

table(s) related to the sequence listing

b. format of material

☐

in written format

☐

in computer readable form

c. time of filing/furnishing

☐

contained in the international application as filed.

☐

filed together with the international application in computer readable form.

☐

furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

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Box No. II. Priority

1. ☒ The following document has not yet been furnished:

☒ copy of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date in the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43bis.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

WRITTEN OPINION OF THE
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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims 1-20	YES
	Claims	NO
Inventive step (IS)	Claims 1-20	YES
	Claims	NO
Industrial applicability (IA)	Claims 1-20	YES
	Claims	NO

2. Citations and explanations:

1. The present report makes reference to the following document:

D1: US-B-6 199 4901 (LANGER HEINZ) 13 March 2001
(2001-03-13)

INDEPENDENT CLAIM 1

2. Document D1, which is considered the closest prior art, discloses (column 3, line 26 to column 5, line 18; figures 1-4) (the references in parentheses are to D1),

load-receiving device (1) for depositing and removing loading equipment onto and from a shelf of a high-shelf storage system, with a lifting platform (2) that can be raised laterally alongside the high-shelf storage system, with a support device mounted on the lifting platform (2) for receiving, as required, at least one piece of loading equipment that has a base frame (3) as well as coupling and upper slides (4, 5) which can be displaced by means of at least one displacement drive in a deposit or

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Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

removal direction at the same time as and relative
to the base frame (3),

from which the subject matter of claim 1 differs in
that

the load-receiving device has at least one conveying
means mounted on the upper slide, in particular a
conveyor belt, for transporting the storage
equipment using friction, said conveying means being
coupled to a conveying means drive that is comprised
of two tension mechanism drives, a first tension
mechanism of a first tension mechanism drive being
guided circularly by a drive wheel that is mounted
on the base frame and powered by a conveyor motor
over two diverter pulleys mounted at its two ends on
the base frame and over two diverter pulleys mounted
at the ends of the coupling slide, and a second
tension mechanism of a second tension mechanism
drive being diverted by two diverter pulleys mounted
on the upper slide and coupled in a moveable manner
to the coupling slide, and the base frame, coupling
slide and upper slide each being approximately the
same length and being guided toward one another, and
a maximum extension distance of the extended upper
slide between the faces of the base frame and the
upper slide, as viewed in the direction of
extension, being less than the length of the base
frame and being limited by an overlap region between
the opposite faces of the base frame and upper slide
that results from the diversion of the tension means
by the diversion pulleys, the upper slide being able

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citations and explanations supporting such statement

to move at least two indentations for the loading equipment in the shelf of the high-shelf storage system, said indentations being arranged in succession, as viewed in the direction of extension, and the conveying and displacing means having separately controllable motors attached to the lifting platform, and the second tension mechanism of the second tension mechanism drive for the conveying means drive being guided circularly around a first diversion pulley that is mounted on the upper slide and powered by the first tension mechanism and around a second diversion pulley that is mounted at one end of the upper slide, and the conveying means being drivable by the second tension mechanism and the second diversion pulley, and the displacement drive comprising at least one tension mechanism drive that is coupled to the displacement motor and arranged separate from the tension mechanism drives for the conveying means drive, and at least one displacement drive and one linear guidance device that runs parallel to the direction of extension and retraction being arranged between the support device, in particular the base frame, and the lifting platform, and the support device being guided along the linear guidance device and being displaceable by the displacement drive in the direction of extension and retraction by approximately the length of the overlap region such that the conveying means can be extended at least as far as a rear face, as viewed in the direction of extension, of a piece of loading equipment that is located on the shelf and can thus fully support the

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underside of the loading equipment in the direction of extension and retraction.

Therefore, the subject matter of claim 1 is novel (PCT Article 33(2)).

2.1. The problem to be solved by the present invention can thus be seen as that of permitting the simple and dimensionally stable handling of the loading equipment as well as the enlargement of the high-shelf storage system (page 3, lines 2-11).

2.2. The solution to this problem as proposed in claim 1 of the present application involves an inventive step (PCT Article 33(3)) for the following reasons:

The solution is not disclosed in document D1, since D1 does not mention the use of a conveying means and two-tension mechanism drives, separately controllable motors attached to the lifting platform or configuring the load-receiving device smaller.

2.3. None of the available prior art documents gives a person skilled in the art any suggestion of using two tension mechanism drives or separately controllable motors attached to the lifting platform or of configuring the load-receiving device smaller.

INDEPENDENT CLAIM 19

2.4. Claim 19 relates to a method corresponding to the device according to claim 1 and thus likewise

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satisfies the PCT requirements with respect to
novelty and inventive step.

INDEPENDENT CLAIM 20

2.5. Claim 20 relates to a conveying device with a load-receiving device according to claim 1 and thus likewise satisfies the PCT requirements with respect to novelty and inventive step.

DEPENDENT CLAIMS 2-18

2.6. Claims 2-18 are dependent upon claim 1 and thus likewise satisfy the PCT requirements with respect to novelty and inventive step.